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[Continued on next page]

(54) Title: HETEROBICYCLIC COMPOUNDS AS PHARMACEUTICALLY ACTIVE AGENTS

$$\begin{array}{c|c}
Y^2 & Y^1 \\
Y^3 & Y^4 & X^1
\end{array}$$

$$\begin{array}{c|c}
R^3 \\
R^1$$

(57) Abstract: Described are heterobicyclic compounds such as 4,5,6,7-tetrahydrobenzo[b]thiophene-3-carboxylic acid amides, 4,7-dihydro-5H-thieno[2,3-c]pyran-3-carboxylic acid amides, or benzo[b]thiophene-3-carboxylic acid amides and pharmaceutically acceptable salts thereof, the use of these derivatives for the prophylaxis and/or treatment of various diseases such as infectious diseases, including mycobacteriainduced infections and opportunistic diseases, prion diseases, immunological diseases, autoimmune diseases, bipolar and clinical disorders, cardiovascular diseases, cell proliferative diseases, diabetes, inflammation, transplant rejections, erectile dysfunction, neurodegenerative diseases and stroke, as well as compositions containing at least one heterobicyclic compound and/or pharmaceutically acceptable salts thereof. Furthermore, reaction procedures for the synthesis of the heterobicyclic compound are disclosed.

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